

Date: Tue, 3 Aug 93 03:13:52 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #938
To: Info-Hams

Info-Hams Digest Tue, 3 Aug 93 Volume 93 : Issue 938

Today's Topics:

 ANARTS NEWS770 01/8/93
 Daily Solar Geophysical Data Broadcast for 02 August
 difference between 4X250B & 4CX250 tubes
 Emergency Power Off (2 msgs)
 Emergency Power Off.
 HAMCOM22.ZIP - HamComm 2.2: Send/Receive RTTY,CW w/o modem
 Handhelds on airplanes

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 3 Aug 93 05:58:31 GMT
From: munnari.oz.au!metro!mippet.ci.com.au!eram!dave@network.ucsd.edu
Subject: ANARTS NEWS770 01/8/93
To: info-hams@ucsd.edu

ANARTS BULLETIN 770 01/8/93

Views expressed in this news bulletin are not necessarily
those of the Broadcast Officer, the Relay Officers, or of the
Society.

1993 2nd Riverina Field day

The Wagga Amateur Radio Club is hosting the 1993 2nd Riverina
Field Day at Wagga Wagga on the weekend of August 14th and
15th next.

This event is to be hosted in alternate years by the above club and the Twin Cities Radio and Electronics Club at Albury, the inaugural hosts.

The event this year will be held at the Murrumbidgee Turf Club facilities with ample cover in case of rain, and carpeted indoor areas (reminds one of Wyong this year).

The event will feature Trade Displays, Fox Hunts, Amateur Television, Packet Radio, and more. Admission charge is 5 dollars per day per adult, 3 dollars concession or 8 dollars for a family. For both days, it is 10 dollars per adult, 3 dollars concession, and 12 dollars per family.

There will be a dinner on the Saturday night at 16 dollars per head with a special guest speaker, and 2 ATV videos.

There are a variety of caravan parks and motels at a range of prices, but please book in advance. Additional information may be found in the July AR.

Sounds like a good weekend's entertainment, take your foxhunting gear, and meet old friends at the Riverina Field Day, 14th-15th August.

Information courtesy of Barry VK2KUZ Field Day Co-ordinator

ANARTS meeting

The next meeting of ANARTS will be on Friday 6th August and will be held at the home of one of our members, Keith VK2ZZO. QTH is in callbook, meeting will start at 7.30 pm sharp.

Hope to see some more of our members there.

73s de Pat VK2JPA Sec.

ARRL Committee on Amateur Radio Digital Communications Preliminary report

We are reproducing the report included in the RTTY Digital Journal of May/June 1993 and presented to the ARRL Board of Directors on March 28 1993. It should be of interest to all

amateurs using digital modes on HF.

Part 7 and last

This philosophy argues for maximum " enfranchisement" of digital stations, which we use here to mean accommodating stations that want to operate manually, semi-automatically, or automatically within the digital part of the band with a minimum of restrictions.

Those restrictions that the Committee has recommended -- including regulatory subbands for automatic-control and bandwidth limitation of semi-automatic stations -- are intended to facilitate this enfranchisement while protecting other operations from unnecessary interference.

Maximising "throughput"

Proper use of the available spectrum also calls for maximising the amount of information that flows. The measure of this efficiency can be expressed broadly in bits-per-second-per-Hertz. That is, getting the maximum information rate in the minimum bandwidth. The Committee is vitally interested in assisting the amateur community to advance digital technology in that direction. It is the view of the Committee that a technology that provides 1. spectral efficiency 2. robustness, and 3. automatic channel sharing, is highly desirable. Such a technology would better serve all digital applications , automatic, semi-automatic and manual alike, by allowing all amateurs to participate in the various digital applications, while making good use of the available spectrum.

Summary

The Committee believes that the recommendations that have been developed, including the modifications encompassed in this report, provide for the necessary protection of all amateurs, a nurturing environment for the development of new technologies, the vehicle to encourage efficient use of HF spectrum, and the support necessary to properly manage the growth in traffic handled by the digital networks.

::::END::::

IPS weekly report

23 July - 29 July 1993

Issue no.: 31

Date of issue: 30 July 1993

Date	23	24	25	26	27	28	29
10cm	110	106	102	104	103	102	100
A	07	04	05	04	11	06	(13 estimated)
T	48	62	63	61	61	70	68

Summary of activity

Solar activity was very low or low throughout the period.

The geomagnetic field at Learmonth (WA) was quiet 23rd-26th, and 28th July, quiet to unsettled on 27th, and quiet to active on 29th.

Ionospheric F2 critical frequencies at Sydney were near normal 23rd-34th, and mostly near predicted monthly values over the remainder of the period with brief enhanced periods of up to 40 per cent on 25th-27th, and enhanced about 30 per cent at night on 28th-29th July. Spread F was observed during local night on 25th-27th, with brief sporadic E observed on 27th.

Forecast for the next week (23 - 29 July)

Solar : Low.

Geomagnetic: Unsettled to active on the 30th. Quiet to unsettled on the 31st and 1st. Mainly quiet thereafter.

Ionospheric: Near predicted monthly values.

Courtesy of IPS Radio and Space Services

VK2SG RTTY DX NOTES 23 JULY '93

VK2SG RTTY DX NOTES FOR WEEKENDING 23 JULY 1993 (BID RTDX0723)

Our information this week came from: CE3GDN, ZS5S, 9X5LJ, W2JGR, WB2CJL, KE6XJ, K9AJ, BV5AF, OPDX, I5ICY, DJ0WQ, DJ3IW and the Central Europe Dx-Cluster node DB0SPC, and NJ0M node of the Twin Cities Dx Packet Cluster.

Bandpass:
Friday 16

0135-14086 4X6U0
0303-14084 ES7QF
0320-14085 8P6SM
1330-14088 9V1YJ
1443-14081 JT1CS
2013-14086 FP4EK
2054-14081 RT4UA
2100-14090 UN8PFE
2106-14084 OM3JW
2205-14086 Z32GX
2244-14083 HK0DPA
2351-14082 U050C

Saturday 17

0240-14085 TI2MCL
0247-14084 WP4Q
0423-14085 ES7QF
0433-14084 4X1KP
0433-14084 ES7QF
0438-14087 OM5SNP
0530-14080 CP5BT ARQ
0940-21085 9A1CRT
1103-21073 VU2RAK
1145-21085 9K2IC
1322-14089 JT1CS
1545-14082 XU8DWC (Leaving in September)
1616-14083 KL7AJ
1833-14088 BT2000BJ Qs1 BY1QH
2029-14088 Z32GX
2103-14083 FY5FJ
2114-14087 FM5DN
2145-14080 CN8NP
2255-14079 V85GA

Sunday 18

0039-14091 UN8PFE
0216-14087 F05EM
0438-14084 FS7UQ
0504-14086 T77T
0515-14087 T24JJ Qs1 JA2FJP
0526-14087 PZ2AC
0536-14073 C91A ARQ
1141-14088 9H1ET
1204-14081 HL5AWS
1207-14090 KG4WS
1243-21086 ET3SID
1245-14085 U050C
1302-14086 XU8DWC

1317-14090 HK0DPA
1330-14088 XX9GU
1334-21083 3C1TR
1351-14089 JT1CS
1354-14082 9V1JY
1403-21087 Z21GZ
1419-21073 VQ9CE
1538-14083 FM5DN
1558-21087 V51GB Qs1 P.O.BOX 1165, TSUMEB 9000, NAMIBIA
with equivalent of 5 IRC'S. His post does
not accept them.
1635-21086 A45ZX
1645-21086 9A3AM
1658-14086 TK5EP
2126-21087 KP2N
2128-21088 OA4CN
2218-14089 VP2BH

Monday 19

0143-14090 A45ZX
0134-14084 HR1JRR
0208-14086 4X6U0
1248-14091 BT2000BJ
1443-14082 NP2EG
1450-14090 V85GA
1805-14087 9H1ET
1952-14084 GJ4YAD
2023-14085 UN8PFE
2211-14087 EA9NP
2223-21088 WP4Q
2253-21091 LX10M

Tuesday 20

0140-14087 4X6U0
0257-14085 KG4CW
0608-14088 OM3CPS
1706-14088 U050C

Wednesday 21

0130-14087 TI2MCL
0133-14089 4X6U0
0147-14085 FM5DN
0345-14087 KH3!F
0619-14084 V51GB
1725-14085 ES7AM
1908-14084 OM3CPS
1915-14086 C31HK

Thursday 22
1403-21081 3C1TR
1703-14088 YL2KF
1938-14083 U050C
2118-14088 UN8PFE

NOTES OF INTEREST:

The AH1A Qsl cards arrived in Denver on 16 July from the printer in Belgium. All cards should be out by the end of September.

PRATAS Is. Bolon, BV5AF (President of CTARL) inform that he will be the Chief of BV9P Dxpedition. No definite date is fixed at the present. They are supposed to operate as BV0ARL/BV9P where BV0ARL is the call of CTARL Chinese Taipei Amateur Radio League. The island is located about 350 mile aways from Taiwan at South China Sea. Mode used will be SSB, CW, AMTOR, RTTY, SSTV and also SATELLITE with 12 operators. Stay tuned, more soon.

ANGUILLA. John, KA3DBN will be signing VP2EBN from 22 to 30 Aug. Operation will be on CW, SSB and RTTY from 80 to 6 meters.

PENGUIN Is/WALVIS Bay. James, DJ0WQ with DK2WH, DJ4LK and DJ2ZS will sign ZS0PI from 28 July till 4 August on CW, SSB and RTTY. James and DJ2ZS will than move to Walvis Bay from 6-28th August.

TUVALU Is. It appears T24JJ has concluded his stay in Tuvalu. He spotted three time on local Packet Cluster (KE6XJ area) with few rtty activity.

Send your bandpass and notes for next week to Bob, WB2CJL at CE3GDN.#STG.CHL.SA.

GL de (DX2) Luciano, I5FLN AT ZS5S.ZAF.AF

Coming events

August	21st-22nd	SARTG WW RTTY Contest
September	25th-26th	CQ/RTTY Journal RTTY Contest
October	16th-17th	JARTS WW RTTY Contest
November	13th-14th	WAE RTTY Contest

NOTE OUR WEEKLY BROADCAST SCHEDULE.

3.545 mhz	0930 utc	VK2BQS (Jim)
7.045 mhz	0030 utc	VK2CTD (COL)
14.070 mhz (amtor/fec)	0030 utc	Presently unavailable.
14.091 mhz	0030 utc	VK2BQS (JIM)
146.675 mhz	0030/0930 utc	VK2JPA (PAT)
144.850 mhz (ax25 bbs)		VK2JPA AT vk2rwi
146.675 mhz (rtty mmbbs/repeater)		VK2RTY

Society information

The Society may be contacted at : PO Box 860, Crows Nest 2065 Australia, for such matters as membership and general enquiries. Enquiries can also be made by packet to the President (Col) VK2CTD @VK2RWI or the Secretary (Pat) VK2JPA @VK2RWI.

News items may be sent to Broadcast Officer PO Box 60 Blacktown 2148 Australia, or by packet to VK2JPA @ VK2RWI. The Internet address for the Broadcast Officer is : patl@extro.ucc.su.OZ.AU

The Society welcomes news items on any digital subjects from anywhere. We are looking forward to news from your areas to let other amateurs know what you are doing in the hobby. We hope to hear from you.

73s de Pat VK2JPA Broadcast Officer

That concludes broadcast 770 1st August 1993.
Inserted by VK2BQS (Jim) Vice-President ANARTS.

NOTE That the NEWS BROADCASTS ARE ON SUNDAYS ONLY.....

--

Dave Horsfall (VK2KFU)	VK2KFU @ VK2RWI.NSW.AUS.OC	PGP 2.3
dave@esi.COM.AU	...munari!esi.COM.AU!dave	available

Date: 3 Aug 93 07:01:12 GMT
From: news-mail-gateway@ucsd.edu
Subject: Daily Solar Geophysical Data Broadcast for 02 August

To: info-hams@ucsd.edu

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 214, 08/02/93
10.7 FLUX=100.7 90-AVG=107 SSN=070 BKI=0110 0011 BAI=001
BGND-XRAY=B2.6 FLU1=1.8E+05 FLU10=1.2E+04 PKI=3121 1222 PAI=006
BOU-DEV=004,005,008,004,002,004,008,006 DEV-AVG=005 NT SWF=00:000
XRAY-MAX= C2.0 @ 0957UT XRAY-MIN= B2.3 @ 0728UT XRAY-AVG= B5.1
NEUTN-MAX= +002% @ 1240UT NEUTN-MIN= -003% @ 2255UT NEUTN-AVG= -0.1%
PCA-MAX= +0.1DB @ 1755UT PCA-MIN= -0.2DB @ 2340UT PCA-AVG= +0.0DB
BOUTF-MAX=55370NT @ 1319UT BOUTF-MIN=55334NT @ 1908UT BOUTF-AVG=55358NT
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+084,+000,+000
GOES6-MAX=P:+122NT@ 1715UT GOES6-MIN=N:-057NT@ 1831UT G6-AVG=+105,-017,-040
FLUXFCST=STD:120,120,120;SESC:120,120,120 BAI/PAI-FCST=010,015,020/010,015,020
KFCST=2224 3122 2334 4333 27DAY-AP=007,008 27DAY-KP=2113 2122 3311 2232
WARNINGS=
ALERTS=
!!END-DATA!!

NOTE: The Effective Sunspot Number for 01 AUG 93 was 71.8.
The Full Kp Indices for 01 AUG 93 are: 1+ 1o 0+ 1- 2- 2o 2- 2-

Date: Mon, 2 Aug 1993 13:46:01 GMT
From: unix.sri.com!nova.sarnoff.com!NewsWatcher!user@hplabs.hpl.hp.com
Subject: difference between 4X250B & 4CX250 tubes
To: info-hams@ucsd.edu

In article <9307271213.AA01653@umassmed.UMMED.EDU>,
ahall@umassmed.UMMED.EDU (Art Hall) wrote:

>
> I am looking for information about two tubes - 4X250B and 4CX250. My
> amplifier uses the 4X250B and I would like to know if I could use the
> 4CX250 as replacement.

>
> WB3EJA Art Hall
> ahall@umassmed.ummed.edu

>
>
>
>
>
>
>
>
> --

> Login name: ahall In real life: Art A. Hall
> Office: Biomedical, (508)8563758
> Directory: /resh/ahall

The difference between these tubes is that the 4x250 has a glass base seal

and the 4cx250 has a ceramic seal. The 4cx250 is preferable since the seal is more rugged, but for amateur use these tubes are essentially interchangeable. I have had 4x250's which made better than 300 W out on two meters for quite a while. The 4-250 is an entirely different tube and is a large glass bottle with a different base.

Date: 3 Aug 93 05:21:00 GMT
From: pitt.edu!jjast7@uunet.uu.net
Subject: Emergency Power Off
To: info-hams@ucsd.edu

: Regarding 220V wiring: I believe the requirement of the NEC is that
: you may run three wire 220 (hot1-hot2-gnd) ONLY if the appliance has
: no 110 volt circuits; hence Al's stove is a flagrant violation...

NOT

: presumably the code was a bit more lenient once upon a time. Many
: electric clothes dryers are hooked up this way with 3 prong plugs.

And there is a specific section 250-60 that allows this today (1993 NEC)

: For most 220 circuits that include 110V taps, you must run four-wire
: 220 (hot1-hot2-neut-gnd). A modern stove with 220V burners and a 110V
: vent fan fits this category.

Yup

: Note that the safety ground is never omitted from 220V wiring, but
: sometimes the neutral conductor is.

WRONG - the 'neutral' IS the grounded circuit conductor in a 3 wire
220v service.

Actually, just the opposite - Frames of Ranges... shall be permitted
to be grounded to the grounded circuit conductor [white] if all of the
conditions in (a) through (d) are met. Mail me if I should key it in.

--

Peace, Jim Alles CET (NICET Level IV, Fire Alarm Systems)
University of Pittsburgh Medical Center (412) 647-3223 alles@med.pitt.edu
Be life long or short, its completeness depends on what it is lived for.
Ecclesiastes 9:1-12 Disclaimer: This is vanity.

Date: 3 Aug 93 05:22:43 GMT
From: pitt.edu!jjast7@uunet.uu.net
Subject: Emergency Power Off
To: info-hams@ucsd.edu

: Gary Coffman (gary@ke4zv.uucp) wrote:

: : We call it a GFI, Ground Fault Interrupter.

According to the NEC, GFCI = Ground Fault Circuit Interrupter. It doesn't interrupt the ground fault.

A device intended for the protection of personnel that functions to deenergize a circuit or portion thereof within an established period of time when a current to ground exceeds some predetermined value that is less than that required to operate the overcurrent protective device of the supply circuit.

: : Our 110 volt residential wiring consists of three insulated wires, the
: : hot (black), the neutral (white), and the safety ground (green). The

Actually, although I am not real happy about it myself, The color code for branch circuits is as follows:

The grounded conductor of a branch circuit shall be identified by a continuous white or natural gray color. ...

The equipment grounding conductor of a branch circuit shall be identified by a continuous green color... unless it is bare.

But the code still talks about grounded neutral. It appears that the neutral is specifically the grounded conductor in a single phase, 3 wire system, "220v". An individual branch circuit does not have a neutral, just a grounded conductor. So much for common terminology.

: : safety ground *can* be bare under certain conditions, but the other
: : two are insulated. The safety ground and the neutral lead must be
: : connected together at the distribution panel, where they're both
: : connected to Earth ground, but they aren't supposed to be connected
: : together anywhere else

This should read "at the service disconnect", distribution panels may be located remotely, and would require four wires for a 220v feed.

: : A GFI is configured to measure current flow in this
: : third wire. If it exceeds a minimum value, it trips the hot lead
: : out of circuit.

WRONG

Alan Bloom (alanb@sr.hp.com) wrote:

: I thought that the GFI measured the differential current in the hot and
: neutral wires.

This is correct - and no grounding is required for GFCI protection. A manufacturer will probably specify a ground connection, but this for operation of the test feature. In fact, a GFCI type receptacle may be used as a replacement for existing nongrounding types where a grounding means does not exist in the receptacle enclosure - but check the manufacturers recommendations.

: If the GFI sensed ground-lead current, then if you touch a
: "hot" wire while standing on earth ground (swimming pool, for example),
: the GFI would not trip. (Since the return current would be through the
: earth, not the safety ground.)

Which, of course, is precisely what we are trying to protect against. Note that the Equipment Grounding Conductor is meant to provide a means to trip the overcurrent protection with a short circuit, instead of leaving the frame energized if an ungrounded conductor were to come in contact with the frame of an appliance.

: : Our 220 volt systems can be more complex. They can be either single
: : phase, or one of two different varieties of three phase. In residential
: : wiring single phase is normally used and all three wires usually carry
: : current. Two of the wires are "hot" and one is neutral. From either hot
: : wire to neutral, you get 110 volts. From one hot wire to the other, you
: : get 220 volts. Note the absence of a separate safety lead.

...until you get to the load side of the service disconnect, with certain *exceptions*.

: This brings up an interesting question: My (old) electric stove has a
: 3-prong 220V plug on it. It also has a 3-wire 110V AC outlet for plugging
: in your coffee pot or whatever. I assume the 110V outlet's neutral and
: safety ground leads must just be wired together to 220V neutral. Isn't
: this some kind of violation of the electrical code?

Correct presumption. No violation, this is the one exception specifically spelled out - it even has it's own section number: 250-60. Frames of Ranges and Clothes Dryers.

: : Ideally, loads are balanced so no *net* current flows in the neutral lead,
: : thus it can be considered "ground", but this rarely happens in practice.

Rarely happens? It is unlikely that it ever will - which lights are turned on? And, it can NEVER be considered ground, just 'the grounded conductor'. Remember, the white wire can be just as hot (and lethal) as any other color - depending on conditions. You should never assume that a conductor is at ground potential unless you have placed a bonding jumper to ground and tested it. Otherwise it should be treated as 'hot work'.

: I assume that's the way my stove works. There would be no reason to wire
: the burners to the third wire. For sure my linear amplifier doesn't put
: current into the third lead. What kind of 220V load would intentionally
: draw current from the neutral lead?

A 'pure' 220v load would not, but your stove is a good example, if you
consider the appliance as a whole as the load - same with a clothes
dryer, the motor is generally 110v.

--

Peace, Jim Alles CET (NICET Level IV, Fire Alarm Systems)
University of Pittsburgh Medical Center (412) 647-3223 alles@med.pitt.edu
Be life long or short, its completeness depends on what it is lived for.
Ecclesiastes 9:1-12 Disclaimer: This is vanity.

Date: 3 Aug 93 10:16:51 GMT
From: news-mail-gateway@ucsd.edu
Subject: Emergency Power Off.
To: info-hams@ucsd.edu

My solution to the problem is simple; a heavy-duty (100-amp) 2-pole contactor
(relay) in the feed to the shack. Its coil is wired to a recessed green
push-to-make button, there is also a small extra 'sustain' contact on the
relay that parallels this button and feeds power to the relay coil as
long as the relay is 'in'.

In series with the relay coil is a long loop of wire, with push-to-
break switches located at several places in the shack. These are colored red,
and have mushroom-type heads so they can be hit easily in an emergency.

All this stuff is standard industrial/commercial electricians stock parts.

In operation, pressing the GREEN button pulls the relay in & applies power to
the shack circuits. The relay is held in by the sustain contacts. If any of the
RED buttons are pressed, the relay is de-energized & power is removed from the
shack circuits. The other plus point about this scheme is that if the power
supply itself fails, the relay drops out, and will not go back in until the
green button is pressed. This stops damage thats sometimes caused when the
power supply pulses on and off (which can do horrible things to equipment that
has large-value smoothing capacitors, motors etc).

It also keeps shack-power off if the GFI relay undergoes a trip/reset cycle.

We have all our computer rooms wired similarly; using a series of linked relays,
hitting one red button takes the clean & dirty supplies, and the lighting, all
out in a single action, and requires human intervention to start anything

```
-Pete Lucas      G6WBJ      NERC Computer Services      Swindon      England
pjm1%swmis.nsw.ac.uk@nsfnet-relay.ac.uk      [Internet]
Dangerous when Wet.      pjml@uk.ac.nsw.swmis      [UK Only!]
```

Tom Anna KG7NR
anna@techbook.com

In article <23jgtq\$eqo@news.bu.edu> david@med-busphed.bu.edu writes:
>In the hopefully not too distant future I will be receiving my amateur radio
>license, and I would like to be able to take my 2m handheld when I go on

>vacation or a business trip.

Its 100 degrees F in the shade. But how do I know its summer time? Because people are posting questions about carrying walkie-talkies on planes.

You can carry a walkie-talkie on a plane - even Aeroflot. You can use it in the terminal - you can even order a pizza. If you are within 200 miles of the border you can order extra Canadian bacon for no extra charge.

Vacationers in Hawaii get extra pineapple if waiting for a delayed flight to another island.

--

Julian Macassey, N6ARE julian@bongo.tele.com Voice: (213) 653-4495
Paper Mail: 742 1/2 North Hayworth Avenue, Hollywood, California 90046-7142

Date: (null)
From: (null)
Did I miss anything?

--

Peace, Jim Alles CET (NICET Level IV, Fire Alarm Systems)
University of Pittsburgh Medical Center (412) 647-3223 alles@med.pitt.edu
Be life long or short, its completeness depends on what it is lived for.
Ecclesiastes 9:1-12 Disclaimer: This is vanity.

Date: 3 Aug 93 07:04:50 GMT
From: pitt.edu!jjast7@uunet.uu.net
To: info-hams@ucsd.edu

References <23fe5uINNmj2@network.ucsd.edu>, <TiJm8B1w165w@inqmind.bison.mb.ca>,
<23j9acINNomc@network.ucsd.edu>
Subject : Re: Emergency Power Off

May I summarize?

We seem to have developed four methods, each with +/-'s:

1. Safety switch. This is the 'knife blade' type, may or may not have fuses. It will clear any arcing that might weld a relay's contacts, and can be locked out. Requires power wiring (full load) to the switch enclosure. It's simplicity makes it more reliable. It can also be

used to isolate everything before lightning strikes.

2. Holding relay with mushroom switch. A manual action is required to apply power to a contactor, which holds itself open, until the coil circuit is interrupted by either activation of the mushroom switch, or momentary loss of power. This can save equipment if the Utility trips something, cause we won't be live for the re-closure. The relay's contacts could weld together in case of lightning strike, or improper load for the ratings. Only control wiring is required to the switch.

3. Shunt-trip circuit breaker. A pushbutton applies A.C. power to a pigtail lead on a special circuit breaker. Probably the most common for commercial applications. You may have to dedicate a circuit breaker panel to hold it. Only control wiring is required for the switch - connections are straightforward.

4. Ground Fault Circuit Interrupter type receptacle. We either take it apart, or manufacture a cord with a resistor in series with a pushbutton between the ungrounded conductor and the equipment grounding conductor (NEC's terminology, not mine). It will work, and readily available. Definitely not U.L. listed for the intended use. I strongly recommend every shack be wired with a GFCI, but can't recommend it for this purpose.

My ideal:

Two FUSES in the house panelboard (which contains surge suppressors on the mains) to the transfer switch for the emergency generator, to a four pole safety disconnect in the shack - isolates ungrounded, grounded, and equipment grounding conductors all at once. (we don't want our gear to look like a ground potential for lightning currents).

Date: Tue, 3 Aug 1993 08:12:17 GMT

From: usc!sol.ctr.columbia.edu!spool.mu.edu!sgiblab!a2i!davidj@network.ucsd.edu

To: info-hams@ucsd.edu

References <CB3rIz.5tJ@odin.corp.sgi.com>, <1993Aug2.194444.14128@alw.nih.gov>, <WATSON.93Aug2171227@wink.corp.sgi.com>

Subject : Re: Earphone Phasing - an experiment

In <WATSON.93Aug2171227@wink.corp.sgi.com> watson@wink.corp.sgi.com (David M. Watson, Jr.) writes:

>Now I'm curious: do many other people suffer this same out-of-phase aversion?

Yes.

--

David Josephson <david@josephson.com>

End of Info-Hams Digest V93 #938
